

61. (New) A method for detecting protein-protein interaction between a first test polypeptide and a second test polypeptide, comprising:

introducing into a host cell a first chimeric gene and a second chimeric gene, said first chimeric gene encoding a first fusion protein having said first test polypeptide, an N-intein, and a first inactive reporter polypeptide, said second chimeric gene encoding a second fusion protein having said second test polypeptide, a C-intein, and a second inactive reporter polypeptide, wherein ligation between said first inactive reporter polypeptide and said second inactive reporter polypeptide forms an active reporter protein;

expressing said first fusion protein and said second fusion protein in said host cell; and detecting said active reporter protein.

62. (New) A kit comprising:

b1 a first vector containing a first chimeric gene encoding a first inactive reporter polypeptide fused to the N-terminus of an N-intein and containing an operably linked first multiple cloning site (MCS) such that when a nucleic acid encoding a first test polypeptide is inserted into said first multiple cloning site, said first chimeric gene is capable of expressing a first fusion protein containing said N-intein, said first test polypeptide, and said first inactive reporter polypeptide fused to the N-terminus of said N-intein;

a second vector containing a second chimeric gene encoding a second inactive reporter polypeptide fused to the C-terminus of a C-intein and containing an operably linked second multiple cloning site (MCS) such that when a nucleic acid encoding a second test polypeptide is inserted into said second multiple cloning site, said second chimeric gene is capable of expressing a second fusion protein containing said C-intein, said second test polypeptide, and said second inactive reporter polypeptide fused to the C-terminus of said C-intein, wherein ligation between the C-terminus of said first inactive reporter polypeptide and the N-terminus of said second inactive reporter polypeptide forms an active reporter protein; and

instructions for using said first and second vectors in detecting protein-protein interactions.